Fig.1

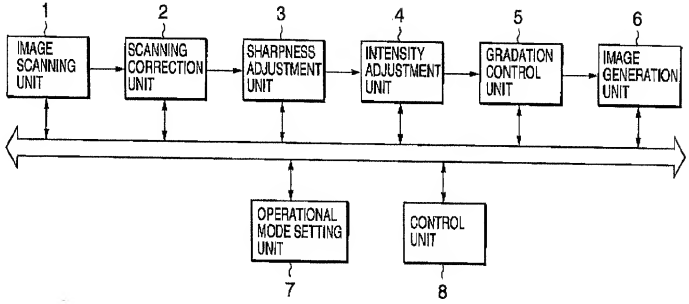

1
IMAGE SCANNING UNIT
2
SCANNING CORRECTION UNIT
3
SHARPNESS ADJUSTMENT UNIT
4
INTENSITY ADJUSTMENT UNIT
5
GRADATION CONTROL UNIT
6
IMAGE GENERATION UNIT
OPERATIONAL MODE SETTING UNIT
7
CONTROL UNIT
8

Fig.2

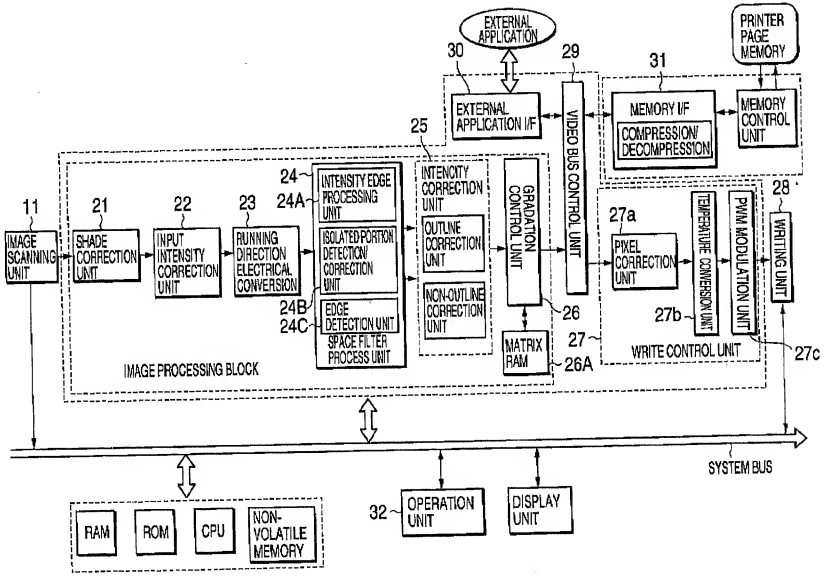
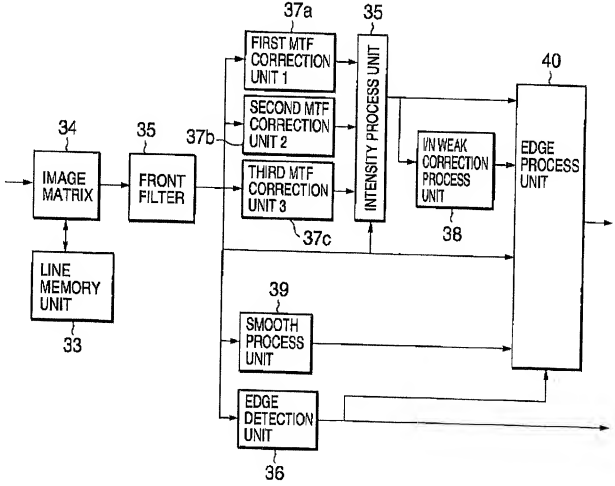

EXTERNAL APPLICATION
PRINTER PAGE MEMORY
30
29
31
EXTERNAL APPLICATION I/F
VIDEO BUS CONTROL UNIT
MEMORY I/F
COMPRESSION/ DECOMPRESSION
MEMORY CONTROL UNIT
25
24
INTENSITY EDGE PROCESSING UNIT
INTENCITY CORRECTION UNIT
GRADATION CONTROL UNIT
28
11
21
22
23
24A
27a
IMAGE SCANNING UNIT
SHADE CORRECTION UNIT
INPUT INTENSITY CORRECTION UNIT
RUNNING DIRECTION ELECTRICAL CONVERSION
ISOLATED PORTION DETECTION/ CORRECTION UNIT
OUTLINE CORRECTION UNIT
PIXEL CORRECTION UNIT
TEMPERATURE CONVERSION UNIT
PWM MODULATION UNIT
WRITING UNIT
24B
24C
EDGE DETECTION UNIT
SPACE FILTER PROCESS UNIT
NON-OUTLINE CORRECTION UNIT
26
27b
27
MATRIX RAM
26A
WRITE CONTROL UNIT
27c
IMAGE PROCESSING BLOCK
SYSTEM BUS
32
OPERATION UNIT
DISPLAY UNIT
RAM
ROM
CPU
NON-VOLATILE MEMORY

Fig.3


37a
35
FIRST MTF CORRECTION UNIT 1
SECOND MTF CORRECTION UNIT 2
THIRD MTF CORRECTION UNIT 3
37b
37c
INTENSITY PROCESS UNIT
40
34
35
IMAGE MATRIX
FRONT FILTER
I/N WEAK CORRECTION PROCESS UNIT
38
EDGE PROCESS UNIT
LINE MEMORY UNIT
33
39
SMOOTH PROCESS UNIT
EDGE DETECTION UNIT
36

1007871.3.021902

Fig.4

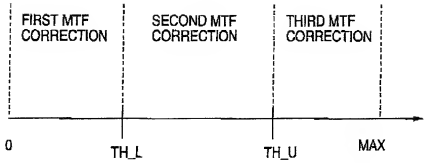
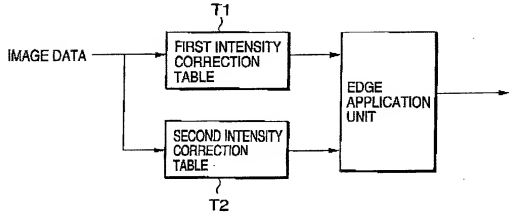


Fig.5



2061201.2187001

Fig.6

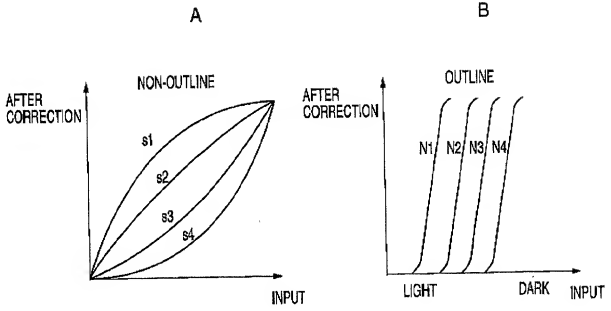


Fig.7

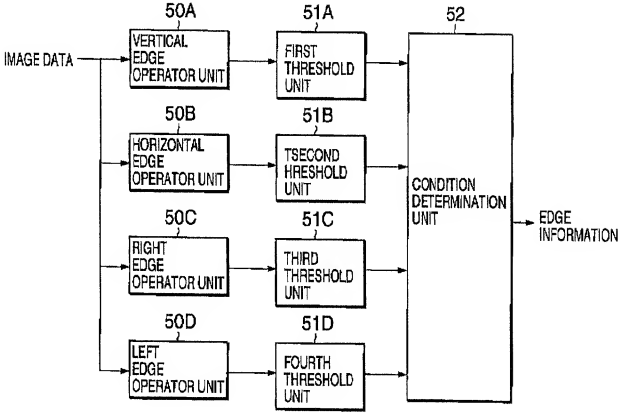

50A
VERTICAL EDGE OPERATOR UNIT
51A
FIRST THRESHOLD UNIT
52
IMAGE DATA
50B
HORIZONTAL EDGE OPERATOR UNIT
51B
TSECOND HRESHOLD UNIT
CONDITION DETERMINATION UNIT
EDGE INFORMATION
50C
RIGHT EDGE OPERATOR UNIT
51C
THIRD THRESHOLD UNIT
50D
LEFT EDGE OPERATOR UNIT
51D
FOURTH THRESHOLD UNIT

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Fig.8

A

	OUTLINE	NON-OUTLINE PORTIONS
LOW INTENSITY	WEAK MTF EDGE INTENSITY	LOW/N EDGE INTENSITY
MEDIUM INTENSITY	STRONG MTF EDGE INTENSITY	HIGH/N EDGE INTENSITY
HIGH INTENSITY	MILD MTF EDGE INTENSITY	MEDIUM//N EDGE INTENSITY

B

	OUTLINE	NON-OUTLINE PORTIONS
LOW INTENSITY	THROUGH EDGE INTENSITY	SMOOTH NON-EDGE INTENSITY
MEDIUM INTENSITY	THROUGH EDGE INTENSITY	SMOOTH NON-EDGE INTENSITY
HIGH INTENSITY	MEDIUM MTF CORECTION PROCESS	SMOOTH NON-EDGE INTENSITY

Fig.9A

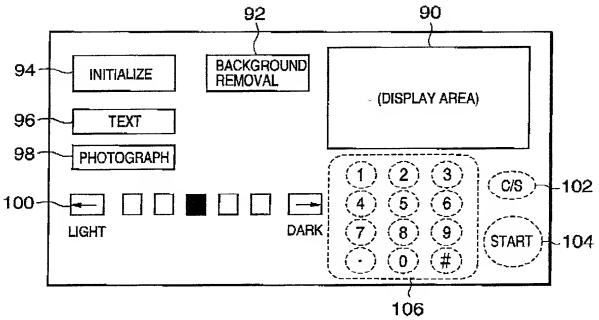
92
90
94
INITIALIZE
BACKGROUND REMOVAL
(DISPLAY AREA)
96
TEXT
98
PHOTOGRAPH
100
LIGHT
DARK
1
2
3
4
5
6
7
8
9
·
0
#
C/S
102
START
104
106

FIG. 9B

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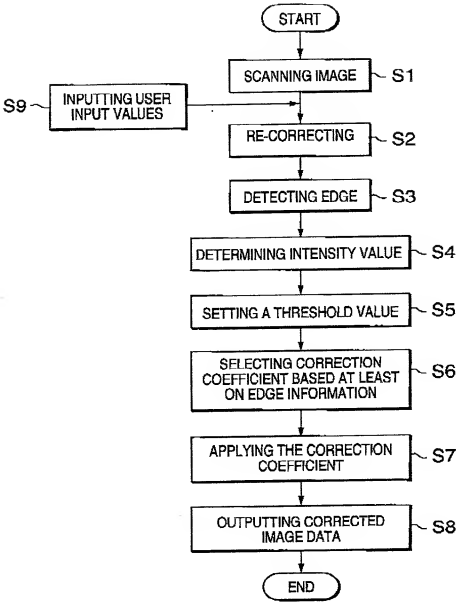
Fig.10


START
SCANNING IMAGE
S1
S9
INPUTTING USER INPUT VALUES
RE-CORRECTING
S2
DETECTING EDGE
S3
DETERMINING INTENSITY VALUE
S4
SETTING A THRESHOLD VALUE
S5
SELECTING CORRECTION COEFFICIENT BASED AT LEAST ON EDGE INFORMATION
S6
APPLYING THE CORRECTION COEFFICIENT
S7
OUTPUTTING CORRECTED IMAGE DATA
S8
END